

## **DETAILED ACTION**

### ***Status of Claims***

1. Claims 1-62 have been cancelled. New claims 63-78 are pending and have been examined.

### ***Response to Amendment***

2. All rejections directed to any of claims 1-62 are withdrawn, since by amendment all those claims have been cancelled.

### ***Response to Arguments***

3. Applicant's arguments with respect to claims 63-78 have been considered but are moot in view of the new ground(s) of rejection.

### ***Claim Rejections - 35 USC § 101***

4. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
5. Claims 63-78 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The claims disclose methods, which *are* a patentable category of invention. However, based on Supreme Court precedent and recent Federal Circuit decisions, the Office's guidance to examiners is that a § 101 process must (1) be tied to another statutory class, such as a particular apparatus, or (2) transform underlying

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subject matter, such as an article or materials, into a different state or thing. If neither of these requirements is met by the body of the claim, the method is not a patent eligible process under § 101 and should be rejected as being directed to non-statutory subject matter. See *Diamond v. Diehr*, 450 U.S. 175, 184 (1981); *Parker v. Flook*, 437 U.S. 584, 588 n. 9 (1978); *Gottschalk v. Benson*, 409 U.S. 63, 70-71 (1972); *Cochrane v. Deener*, 94 U.S. 780, 787-88 (1876); *Ex parte Langemyr* (BPAI May 28, 2008).

### ***Claim Rejections - 35 USC § 103***

6. Claims 63 and 67-78 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sweeting, U.S. Pat. Appl. Pub. No. 2005/0086152, in view of Jones, "The Economics of Futures and Options Contracts Based on Cash Settlement."

7. As to claim 63:

- Sweeting discloses (abstract, paragraphs 0024, 0025, 0031):
  - A method of determining a settlement price of a financial instrument that includes a basket of futures contracts, the method comprising:
    - (a) determining a conversion-factor-weighted price for each futures contract within a basket of futures contracts; (b) identifying the futures contract that is cheapest to deliver into a corresponding physical- delivery futures contract;
- Sweeting does not disclose, but Jones suggests:

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- (c) setting the settlement price equal to the conversion-factor-weighted price of the futures contract identified in (b).
- Neither Sweeting nor Jones actually teach using cheapest-to-deliver (“CTD”) prices as the basis for a cash settlement price for a basket of futures contracts. Sweeting and Jones both describe a practice of using an *index* of prices in the bundle, adjusted by conversion factors, as preferable to a price based on CTD. Jones actually teaches that cash settlement based on CTD prices doesn’t eliminate price manipulation through squeezes of supply of the CTD component. Jones teaches that an index of average prices is better for cash settlement to avoid the squeeze problem, since it is harder to control a larger supply with multiple grades. Since CTD is the mechanism used for delivery settlement of futures contracts, the simplest case in a cash-settled contract is to use the same mechanism: CTD. Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the Sweeting method of calculating a settlement price for a basket of futures contracts, to which conversion prices have been applied, by using the well-known cheapest-to-deliver price from the basket, as has been used in delivery-style basket contracts. The teachings would perform the same function after combination as before, with predictable results, and the skilled artisan could be expected to simply extend the well-known practice of CTD to the price setting method for a cash settlement.

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8. As to claim 67, Sweeting and Jones disclose, because this is the mathematical expression for the conversion-weighted cheapest-to-deliver:

- wherein the settlement price ( $P$ ) is determined in accordance with:

$$P = Z \times (\text{minimum}\{P_1/c_1 \dots P_N/c_N\})$$
 Where:  $Z$  is the notional value of a futures contract;  $N$  is the number of deliverable commodity grades in the basket of futures contracts;  $P_i$ ,  $i = 1$  to  $N$ , are market prices at the time of contract expiration of each futures contracts in the basket of futures contracts; and  $c_i$ ,  $i = 1$  to  $N$ , are conversion factors, where each  $c_i$  scales the corresponding  $P_i$  to compensate for any differentials pertaining to the deliverable grade commodity represented by price  $P_i$ .

9. As to claims 68-70, Sweeting discloses (paragraph 0024):

- wherein each  $c_i$  scales the corresponding  $P_i$  to compensate for any grade differentials pertaining to the deliverable grade commodity represented by price  $P_i$ .
- wherein each  $c_i$  scales the corresponding  $P_i$  to compensate for any quality differentials pertaining to the deliverable grade commodity represented by price  $P_i$ .
- wherein each  $c_i$  scales the corresponding  $P_i$  to compensate for any location differentials pertaining to the deliverable grade commodity represented by price  $P_i$ .

10. As to claims 71-77, Sweeting discloses futures contracts for various types of bonds based on debt instruments issued by the Federal Republic of Germany (paragraphs 0032, 0034). It would have been obvious to one of ordinary skill to

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include all maturities of bonds offered by this entity as possible instruments for a futures contract.

11. Claim 78 is rejected using the same reasoning as claim 67 when applied to one of the instruments of claim 72.

12. Claims 64-66 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sweeting and Jones, as applied to claim 1, further in view of Baecker, U.S. Pat. No. 7,318,045.

13. As to claim 64:

- Sweeting and Jones disclose the limitations of claim 63.
- Sweeting and Jones do not disclose, but Baecker discloses (column 18 lines 31-42):
  - *wherein the financial instrument comprising a futures contract having tick sizes that differ from a tick size of a corresponding physical-delivery futures contract*
- It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of the Sweeting/Jones method by applying it to contracts traded with different tick sizes, because each would predictably perform the same function after combination as before, and because the skilled artisan would recognize that futures contracts with different tick sizes than the corresponding delivery-type contract opens up more trading options across more instruments traded on different exchanges with different rules, such as European-traded-style contracts

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offered in cash-settled versions in a US exchange when the exchanges use different tick sizes.

14. As to claims 65-66:

- Sweeting and Jones disclose the limitations of claim 63.
- Sweeting and Jones do not disclose, but Baecker discloses (column 5 lines 40-53):
  - *wherein the basket of futures contracts corresponds to a deliverable basket for a corresponding physical-delivery futures contracts.*
  - *wherein the financial instrument comprising a futures contract that is cash settled and obeys the same schedule for last trading day and expiration as a corresponding physical-delivery futures contract.*
- It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of the Sweeting/Jones method by applying it to a cash-settled futures contract basket that corresponds to a basket that is deliverable, as disclosed by Baecker, because each teaching would operate the same way after combination as before, with predictable results, and because the skilled artisan would recognize that cash settlement and delivery settlement are two common, sometimes interchangeable, sometimes selectable features.

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***Conclusion***

15. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**.

See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David L. Wood whose telephone number is (571)270-3607. The examiner can normally be reached on Monday to Friday 7:30 - 5:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James "Jay" Kramer can be reached on 571-272-6783. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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